

ATTACHMENT NO. 7

Mitigation Monitoring Data Sheet for
Overall Plant Species Abundance & DistributionEPA PROJECT NO. EPA-CWA-II-92-155MITIGATION AREA NO. 6CDATE: 10-27-99 QUADRAT NO. _____MONITORING YEAR 99 & NO. 3rd yearRECORDER: THTECHNICAL REVIEWER THRegulatory Requirement: Determine for each year of required compliance monitoring the overall abundance and habitat distribution of the various plant species found within the ~~CORPS~~ ^{EPA} approved mitigation areas.

No.	Species	Strata ²	Overall Cover or Stem Density										Abundance/Distribution by Habitat Type ⁴
			11	12	13	14	15						
1.	<i>Polygonum pennsylvanicum</i>	h	3	4	4	4	3						4/PE
2.	<i>Juncus effusus</i>	h	1	1	1		1						1/PE
3.	<i>Carex stricta</i>					1							1/PE
4.													
5.													
6.													
7.													
8.													
9.													
10.													

1 See attached site location map.

2 Herbaceous layer (H), shrub (S), and tree (T).

3

Cover Class	Class Range, %	Midpoint of Class Range, &
1	0-5	2.5
2	>5 - 25	15.0
3	>25 - 50	37.5
4	>50 - 75	62.5
5	>75 - 95	85.0
6	>95 - 100	97.5

4 NWI Wetland Habitats -

PE = Palustrine Emergent; POW = Palustrine Open Water, PF = Palustrine Forested, and PSS = Palustrine Scrub/Shrub.

* GOOSE GRAZING EVIDENT.
LOTS OF WATERFOWL PRINTS
& GRAZED VEGETATION

49

ATTACHMENT NO. 8

DATA SHEETS FOR WETLAND DETERMINATION*

- * Note that data collected for 1999 monitoring was added to 1998+ and 1997 data to facilitate comparative analysis. New 1999 data is noted with a "plus" (*) symbol beside the 1997-1998 data observations.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 Corps Methodology Wetlands Delineation Manual)

11/10/98
11/11/98

Project/Site: <u>ORANGE County Mitigation</u> Applicant/Owner: <u>ORANGE COUNTY, NY</u> Investigator(s): <u>TERRY HUFFMAN</u>	Date: <u>11/20/97 *10/27/99</u> County: <u>ORANGE</u> State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	
Community ID: <u>AA</u> Transect ID: _____ Plot ID: _____	

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Veg. data sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

1. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
2. Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
3. Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
4. Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): Stream, Lake, or Tide Gauge _____ Aerial Photographs: Dates: <u>1997</u> <input checked="" type="checkbox"/> Other: <u>Site photographs 8/97 & 10/97</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <u>Flooded</u> <input checked="" type="checkbox"/> Pondered <u>SOME portions 20%</u> <input checked="" type="checkbox"/> Saturated in: <u>Upper 12" of Soil Profile</u> <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: _____ Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: Depth of Surface Water: <u>2</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.) <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <u>to 5' 0" * 000</u> </div> <u>Same areas only the Rest not Pondered, but Saturated @ 8-10" below surface</u>
Observations and Remarks: 1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input type="checkbox"/> > 2% 4. Oxidized rhizospheres: <input type="checkbox"/> new roots only; <input type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input type="checkbox"/> none 5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input type="checkbox"/> frequent, occurs on an average of more than once in 2 years. 6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, if < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS 7. Ponding? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8. Continuous ponding duration: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input checked="" type="checkbox"/> very long, if > 12.5% GS 9. Saturation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 10. Continuous duration of Saturation: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS	

* Based on data collected 10/22+23/97
+ used to DENOTE DIFFERENT FINDINGS than that of 1997 observation

SOILS

Map Unit Name (Series and Phase): <u>Graded site w/</u> Taxonomy (Subgroup): <u>Subsurface Soil</u> <u>exposed</u>				Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VS</u> Run off ³ : <u>VS (Ponded)</u> Field Observations Confirm NRCS Mapping? <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/>	
Profile Description (Surface to 12"):					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>12</u>	—	<u>10YR 3/2</u>	<u>+ 10YR 5/6</u>	<u>+ F/A</u>	<u>clay</u>
— to —					
— to —					

Hydric Soil Indicators:

Historic: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Listed on Local Hydric Soils List <input checked="" type="checkbox"/> Mottles (Redoxmorphic features)	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors (chroma ≤ 2) <input checked="" type="checkbox"/> Other (Explain in Remarks): <u>soil graded to pond water on a temporary basis</u>
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Current: ☐ Sulfidic Odor
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)
☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☐ Other (Explain in Remarks): _____

Observations and Remarks:
 1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☒ Ponded; ☒ Saturated⁸
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
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Remarks:
 1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by HQUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

* Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

2

ROUTINE WETLAND DETERMINATION
(1987 Corps Methodology Wetlands Delineation Manual)

11/10/97 +

Project/Site: <u>ORANGE County Mitigation</u> Applicant/Owner: <u>ORANGE County, NY</u> Investigator(s): <u>TERRY HUFFMAN</u>	Date: <u>11/20/97*</u> 10/27/97 County: <u>ORANGE</u> State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	Community ID: <u>BB</u> Transect ID: <u>Summary</u> Plot ID: <u> </u>

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Vegetation Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

1. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
 2. Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
 3. Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
 4. Taxonomic References:

HYDROLOGY

<u>Recorded Data (Attached):</u> <u>Stream, Lake, or Tide Gauge</u> <u>Aerial Photographs: Dates: 1997</u> <u>Other: Site photos 8/97 & 10/97</u> <u>No Recorded Data Found</u>	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Pondered <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: <u> </u> Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks) <u> </u>
Current Field Observations: Depth of Surface Water: <u>0-17"</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.) <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 0 6" 17" 0 6" 17" </div>
Observations and Remarks: 1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <u>moose</u> <input checked="" type="checkbox"/> No 3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input checked="" type="checkbox"/> > 2% 4. Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input checked="" type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input checked="" type="checkbox"/> none 5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input checked="" type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input checked="" type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input checked="" type="checkbox"/> frequent, occurs on an average of more than once in 2 years. 6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, if < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS 7. Ponding? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 8. Continuous ponding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input checked="" type="checkbox"/> very long, if > 12.5% GS 9. Saturation? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 10. Continuous duration of Saturation: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS	

3

Unit Name and Phase): Site Graded
ity (Subgroup):

Drainage Class¹: PD
Permeability²: VS
Run off³: VS Pondered
Field Observations Confirm NRCS Mapping?
Yes ☒ No

ie Description (Surface to 12"): + Graded

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
12	<u>+ B</u>	<u>+ 10YR 3/2</u>	<u>+ 10YR 5/6</u>	<u>+ F/D</u>	<u>clay</u>
to					
to					

ic Soil Indicators:

ic: ☐ Histosol
☐ Histic Epipedon
☐ Organic Streaking in Sandy Soils
☐ Listed on National Hydric Soils List
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

☐ Concretions
☐ High Organic Content in Surface Layer in Sandy Soils
☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)

☒ Other (Explain in Remarks): Site graded to pond on a temporary basis

it: ☐ Sulfidic Odor
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)

☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☐ Other (Explain in Remarks):

ervations and Remarks:

Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
ite has been: ☐ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
Soils Currently are: ☒ Flooded; ☒ Ponded; ☒ Saturated
Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations;
(> 30 days) during the growing season; ☐ Unknown
Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

TLAND DETERMINATION

rophytic Vegetation Conditions Present? ☒ Yes ☐ No
land Hydrology Conditions Present? ☒ Yes ☐ No
ydric Soils Conditions Currently Present? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Signature: Terry Huffman

marks:

Possible-water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).

Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).

(a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land

(b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.

(c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

(d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.

(e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

Approved by HQUSACE 3/92*

age class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly d (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

ability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), tely rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

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re abundance: Few (F), Common (C), or Many (M).

contrast: Faint (F), Distinct (D), or Prominent (P).

re: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

ure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or gular), or granular.

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4

ROUTINE WETLAND DETERMINATION

(1987 Corps Methodology Wetlands Delineation Manual)

11/10-11/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u> <i>10/27/99</i>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>CC</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>SUMMARY</u> Plot ID: <u> </u>
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
(If needed, explain answer on reverse or attach separate sheet.) <u>CREATED + RESTORED</u>	

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or, ☒ No
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): <u>Stream, Lake, or Tide Gauge</u> <input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u> <input checked="" type="checkbox"/> Other: <u>Site photos 8/97</u> <u>10/97</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Flooded: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Pondered <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: <u> </u> Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: <u>0-22" + 30" *</u> Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.) <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <u>30"</u> <u>0</u> <u>0</u> </div>
Observations and Remarks: <ol style="list-style-type: none"> Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Slope: <u>0-2%</u>; or <u>> 2%</u> Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input type="checkbox"/> old roots only; <input type="checkbox"/> new and old roots, or <input type="checkbox"/> none Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input type="checkbox"/> frequent, occurs on an average of more than once in 2 years. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, if < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS Ponding? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Continuous ponding duration: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input type="checkbox"/> very long, if > 12.5% GS Saturation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Continuous duration of Saturation: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS 	

(5)

SOILS

Map Unit Name (Series and Phase): <u>Site graded</u> Taxonomy (Subgroup): _____ Profile Description (Surface to 12"): _____				Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VS</u> Run off ³ : <u>VS (Ponded)</u> Field Observations Confirm NRCS Mapping? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
+ 0 to <u>12</u>	+ <u>B</u>	+ <u>10YR 3/2</u>	+ <u>10YR 5/6</u>	+ <u>F/D</u>	<u>Clay</u>
_____ to _____					
_____ to _____					

Hydric Soil Indicators:

Historic: _____ Histosol
 _____ Histic Epipedon
 _____ Organic Streaking in Sandy Soils
 _____ Listed on National Hydric Soils List
 _____ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

_____ Concretions
 _____ High Organic Content in Surface Layer in Sandy Soils
☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☒ Other (Explain in Remarks): Site graded to pond

Current: ☒ Sulfidic Odor
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)
☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☐ Other (Explain in Remarks): _____

Observations and Remarks:
 1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☒ Irrigated; ☒ Land Levelled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☒ Flooded; ☒ Ponded; ☒ Saturated⁸
 4. Soils: ☒ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
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Remarks:
 1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by HQUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

*Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

6

Project/Site: ORANGE County Mitigation
 Applicant/Owner: ORANGE County, NY
 Investigator(s): TERRY HUFFMAN
 Date: 11-20-97
 County: ORANGE
 State: NY
 Normal Circumstances exist on the site? ☒ Yes ☐ No
 Is the site significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
 Is the area a potential Problem Area? ☒ Yes ☐ No
 (If needed, explain answer on reverse or attach separate sheet.) CREATED & RESTORED
 Community ID: DD
 Transect ID: Summary Plot ID:

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
<u>No data sheets</u>		9.	
2.		10.	
		11.	
4.		12.	
		13.	
6.		14.	
		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☐ No; or, ☐ No
- Visually observed rooted emergent vegetation present? ☒ Yes ☐ No
- Taxonomic References:

HYDROLOGY

☒ Recorded Data (Attached):
 Stream, Lake, or Tide Gauge ☒
 Aerial Photographs: Dates: 1997
 Other: Site photos 8/97, 10/97
☐ No Recorded Data Found

Wetland Hydrology Indicators:
 Primary Indicators:
☒ Inundated: ☒ Flooded ☒ Pondered
☒ Saturated in: ☒ Upper 12" of Soil Profile
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☐ Drainage Patterns in Wetlands (Hydrogeomorphic context)
 Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in: ☐ Upper 12" of Soil Profile
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (Explain in Remarks)

Current Field Observations:
 Depth of Surface Water: 0-2.2' (in.)
 Depth to Free Water in Pit: 2.5' (in.)
 Depth to Saturated Soil: 0 (in.)
☒ Tidal Influence
☒ Non-Tidal Influence

Observations and Remarks:

- Filamentous or sheet forming algae present? ☒ Yes ☐ No
- Surface Sediments with Bedding Planes ☒ Yes ☐ No
- Slope: ☒ 0-2% or ☒ 2% ☐ 2%
- Oxidized rhizospheres: ☒ new roots only; ☐ old roots only; ☐ new and old roots, or ☐ none
- Flooding: ☒ None, flooding not probable; ☐ rare, unlikely but possible under unusual weather conditions; ☐ occasional, occurs on an average of once or less in 2 years, or ☐ frequent, occurs on an average of more than once in 2 years.
- Continuous flooding duration: ☒ None; ☐ very brief, if < 2 days; ☐ brief, if < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS; or ☐ very long, if > 12.5% GS
- Ponding? ☒ Yes ☐ No
- Continuous ponding duration: ☐ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS or ☐ very long, if > 12.5% GS
- Saturation? ☒ Yes ☐ No
- Continuous duration of Saturation: ☐ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS

(7)

ATTACHMENT NO. 7

Mitigation Monitoring Data Sheet for
Overall Plant Species Abundance & DistributionEPA PROJECT NO. EPA-CWA-II-92-155MITIGATION AREA NO. 5C+d*DATE: 10-27-99 QUADRAT NO. _____MONITORING YEAR 99 & NO. 3rd yearRECORDER: THTECHNICAL REVIEWER THRegulatory Requirement: Determine for each year of required compliance monitoring the overall abundance and habitat distribution of the various plant species found within the ~~EPA~~ ^{EPA} approved mitigation areas.

No.	Species	Strata ²	<div><div>(A)</div><div>Overall Cover or Stem Density</div><div>(B)</div></div>										Abundance/Distribution by Habitat Type 4
			1	2	3	4	5	1	2	3	4	5	
1.	<i>Polygala pennsylvanica</i>	h	4	4	4	4	4	5	4	4	4	4	
2.	<i>Agrostis a/bq</i>	h	2	1						2		1	
3.	<i>Juncus effusus</i>	h	2						1				
4.													
5.													
6.													
7.													
8.													
9.													
10.													

1 See attached site location map.

2 Herbaceous layer (H), shrub (S), and tree (T).

3

Cover Class	Class Range, %	Midpoint of Class Range, &
1	0-5	2.5
2	>5 - 25	15.0
3	>25 - 50	37.5
4	>50 - 75	62.5
5	>75 - 95	85.0
6	>95 - 100	97.5

4 NWI Wetland Habitats -

PE = Palustrine Emergent; POW = Palustrine Open Water, PF = Palustrine Forested, and PSS = Palustrine Scrub/Shrub.

* GOOSE GRAZING EVIDENCE
lots of water fowl tracks &
grazed plants.

ATTACHMENT NO. 7

Mitigation Monitoring Data Sheet for
Overall Plant Species Abundance & DistributionEPA PROJECT NO. EPA-CWA-II-92-155MITIGATION AREA NO. 5 EDATE: 10-27-99 QUADRAT NO. _____MONITORING YEAR 99 & NO. 3rd yearRECORDER: TH TECHNICAL REVIEWER THRegulatory Requirement: Determine for each year of required compliance monitoring the overall abundance and habitat distribution of the various plant species found within the ~~Corps~~ ^{EPA} approved mitigation areas.

No.	Species	Strata ²	Overall Cover or Stem Density					Abundance/Distribution by Habitat Type ⁴				
			1	2	3	4	5					
1.	<i>Polygonum pennsylvanicum</i>	h	4	4	4	5	3					4/PE
2.	<i>Aquilegia alba</i>	h	1				1					1/PE
3.	<i>Juniperus</i>						4					4/PE
4.												
5.												
6.												
7.												
8.												
9.												
10.												

1 See attached site location map.

2 Herbaceous layer (H), shrub (S), and tree (T).

Cover Class	Class Range, %	Midpoint of Class Range, &
1	0-5	2.5
2	>5 - 25	15.0
3	>25 - 50	37.5
4	>50 - 75	62.5
5	>75 - 95	85.0
6	>95 - 100	97.5

4 NWI Wetland Habitats - PE = Palustrine Emergent; POW = Palustrine Open Water, PF = Palustrine Forested, and PSS = Palustrine Scrub/Shrub.

ATTACHMENT NO. 7

Mitigation Monitoring Data Sheet for Overall Plant Species Abundance & Distribution

EPA PROJECT NO. EPA-CWA-II-92-155

MITIGATION AREA NO. 60 + B*

DATE: 10-27-99 QUADRAT NO. _____

MONITORING YEAR 99 & NO. 3rd year

RECORDER: TH

TECHNICAL REVIEWER TH

Regulatory Requirement: Determine for each year of required compliance monitoring the overall abundance and distribution of the various plant species found within the ^{EM} Corps' approved mitigation areas.

No.	Species	Strata ²	(A) Overall Cover or Stem Density (B)										Abundance/Distribution by Habitat Type ⁴
			1	2	3	4	5	1	2	3	4	5	
1.	Polygonum POTAMOGETON	L	3	4	4	4	3	3	4	4	4	4	4/PE
2.	Juncus Effusus	h	1						1				1/PE
3.	CAREX STRILIG	h	1										1/PE
4.													
5.													
6.													
7.													
8.													
9.													
10.													

1 See attached site location map.

2 Herbaceous layer (H), shrub (S), and tree (T).

3

Cover Class	Class Range, %	Midpoint of Class Range, &
1	0-5	2.5
2	>5 - 25	15.0
3	>25 - 50	37.5
4	>50 - 75	62.5
5	>75 - 95	85.0
6	>95 - 100	97.5

4 NW1 Wetland Habitats -

PE = Palustrine Emergent; POW = Palustrine Open Water, PF = Palustrine Forested, and PSS = Palustrine Scrub/Shrub.

* GOOSE predation;
lots of waterfowl
tracks & grazed plants

SOILS

Map Unit Name (Series and Phase): Graded site
 Taxonomy (Subgroup): _____
 Profile Description (Surface to 12"):

Drainage Class¹: PD
 Permeability²: VS
 Run off³: VS (ponded)
 Field Observations Confirm NRCS Mapping?
 Yes ☒ No

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
+ 0 to 12	+ B	+ 10YR 3/2	+ 10YR 5/6	+ F/D	clay
_____ to _____					
_____ to _____					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Concretions
☐ Histic Epipedon ☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils ☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☐ Listed on National Hydric Soils List ☒ Other (Explain in Remarks): Site graded to pond on a temporary basis
☒ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)
 Current: ☐ Sulfidic Odor ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions) ☐ Other (Explain in Remarks): _____

Observations and Remarks:

- Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
- Site has been: ☐ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
- Soils Currently are: ☒ Flooded; ☒ Ponded; ☒ Saturated
- Soils: ☐ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
- Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? ☒ Yes ☐ No
 Wetland Hydrology Conditions Present? ☒ Yes ☐ No
 Hydric Soils Conditions Currently Present? ☒ Yes ☐ No
 Is this Sampling Point Within a Wetland? ☒ Yes ☐ No
 Signature: Terry Huffman

Remarks:

- Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
- Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 - Non-tidal drainage and irrigation ditches excavated on dry land
 - Artificially irrigated areas which would revert to upland if the irrigation ceased.
 - Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 - Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).
 Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).
 Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).
 Mottle abundance: Few (F), Common (C), or Many (M).
 Mottle contrast: Faint (F), Distinct (D), or Prominent (P).
 Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.
 Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

*Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

(8)

11/10-11/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>

Do Normal Circumstances exist on the site? ☒ Yes ☒ No
 Is the site significantly disturbed (Atypical Situation)? ☒ Yes ☒ No
 Is the area a potential Problem Area? ☒ Yes ☒ No
 (If needed, explain answer on reverse or attach separate sheet.) CREATED + RESTORED

Community ID: EE
 Transect ID: Eg-Eg Plot ID:

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<p><u>Recorded Data (Attached):</u></p> <p><input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <u>1997</u></p> <p><input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>8/97</u></p> <p><input checked="" type="checkbox"/> Other: <u>Site photos 10/97</u></p> <p><u>No Recorded Data Found</u></p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Ponded</p> <p><input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)</p> <p><input checked="" type="checkbox"/> Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in: <input type="checkbox"/> Upper 12" of Soil Profile</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral Test</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Current Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>12</u> (in.)</p> <p><input checked="" type="checkbox"/> Tidal Influence</p> <p><input checked="" type="checkbox"/> Non-Tidal Influence</p>	<p>Observations and Remarks:</p> <ol style="list-style-type: none"> Filamentous or sheet forming algae present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Surface Sediment with Bedding Planes <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Slope: <input checked="" type="checkbox"/> 0-2%; or <input type="checkbox"/> > 2% Oxidized rhizospheres: <input type="checkbox"/> new roots only; <input type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input type="checkbox"/> none Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input type="checkbox"/> frequent, occurs on an average of more than once in 2 years. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, if < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS Ponding? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Continuous ponding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input type="checkbox"/> very long, if > 12.5% GS Saturation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Continuous duration of Saturation: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS

change believed to be result of sheet pile

SOILS

Map Unit Name (Series and Phase): <u>Canandaigua</u> Taxonomy (Subgroup): _____ Profile Description (Surface to 12"): _____				Drainage Class ¹ : <u>SPD</u> Permeability ² : <u>ES</u> Run off ³ : <u>S (Sheet piling)</u> Field Observations Confirm NRCS Mapping? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>4</u>	<u>A/B</u>	<u>10YR 3/1</u>	<u>10YR 5/6</u>	<u>+ F/D</u>	<u>Clay loam</u>
<u>4</u> to <u>12</u>	<u>B</u>	<u>10YR 5/1</u>	<u>10YR 4/8</u> <u>10YR 6/8</u>	<u>F/d</u>	<u>clay loam</u>
___ to ___					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Concretions
☐ Histic Epipedon ☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils ☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☐ Listed on National Hydric Soils List ☒ Other (Explain in Remarks): Sheet piling placed down slope to obstruct drainage & increase duration of surface & subsurface water
☒ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Current: ☐ Sulfidic Odor ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)
☐ Other (Explain in Remarks): _____

Observations and Remarks:

1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☒ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☐ Ponded; ☒ Saturated
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
---	---

Remarks:

1. Possible-water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

OTES:

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).
 Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).
 Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).
 Mottle abundance: Few (F), Common (C), or Many (M).
 Mottle contrast: Faint (F), Distinct (D), or Prominent (P).
 Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.
 Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.
 Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

10

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 Corps Methodology Wetlands Delineation Manual)

11/10-11/98+

Project/Site: <u>ORANGE County Mitigation</u> Applicant/Owner: <u>ORANGE County, NY</u> Investigator(s): <u>TERRY HUFFMAN</u>	Date: <u>11-20-97</u> County: <u>ORANGE</u> State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED + RESTORED</u>	
Community ID: <u>F</u> Transect ID: <u>1-5</u> Plot ID: <u>Summary</u>	

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

1. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %

2. Assume presence of wetland vegetation? ☒ Yes ☒ No; or,

3. Visually observed rooted emergent vegetation present? ☒ Yes ☒ No

4. Taxonomic References:

HYDROLOGY

<p><input checked="" type="checkbox"/> Recorded Data (Attached):</p> <p><input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge</p> <p><input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u></p> <p><input checked="" type="checkbox"/> Other: <u>no site photos 8/97</u></p> <p><input checked="" type="checkbox"/> No Recorded Data Found</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input checked="" type="checkbox"/> Inundated: <u>Flooded</u> <u>Ponded</u></p> <p><input checked="" type="checkbox"/> Saturated in: <u>Upper 12" of Soil Profile</u> <u>all</u></p> <p><input checked="" type="checkbox"/> Water Marks</p> <p><input checked="" type="checkbox"/> Drift Lines</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in: <u>Upper 12" of Soil Profile</u></p> <p><input checked="" type="checkbox"/> Water-Stained Leaves</p> <p><input checked="" type="checkbox"/> Local Soil Survey Data</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p>
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Current Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 12 (in.)

☒ Tidal Influence

☒ Non-Tidal Influence

(in ditch 2") 12

11

Observations and Remarks:

1. Filamentous or sheet forming algae present? ☒ Yes ☒ No ditch only

2. Surface Sediment with Bedding Planes ☒ Yes ☒ No

3. Slope: ☒ 0-2%; or ☒ > 2%

4. Oxidized rhizospheres: ☒ new roots only; ☒ old roots only; ☒ new and old roots, or ☒ none

5. Flooding: ☒ none, flooding not probable; ☒ rare, unlikely but possible under unusual weather conditions; ☒ occasional, occurs on an average of once or less in 2 years, or ☒ frequent, occurs on an average of more than once in 2 years.

6. Continuous flooding duration: ☒ None; ☒ very brief, if < 2 days; ☒ brief, if < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS

7. Ponding? ☒ Yes ☒ No

8. Continuous ponding duration: ☒ None; ☒ very brief, if < 2 days; ☒ brief, if < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS or ☒ very long, if > 12.5% GS (next to River) plots

9. Saturation? ☒ Yes ☒ No

10. Continuous duration of Saturation: ☒ None; ☒ very brief, if < 2 days; ☒ brief, if < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS plots b-e

(11)

SOILS

Map Unit Name (Series and Phase): <u>Canadaigua</u> Taxonomy (Subgroup): _____ Profile Description (Surface to 12"): _____				Drainage Class ¹ : <u>SPD</u> Permeability ² : <u>S</u> Run off ³ : <u>S (Sheet pile)</u> Field Observations Confirm NRCS Mapping? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>4</u>	<u>B</u>	<u>10YR 3/2-1</u>	<u>10YR 5/6</u>	<u>F/d</u>	<u>Clay loam</u>
<u>4</u> to <u>12</u>	<u>B</u>	<u>10YR 5/1</u>	<u>10YR 4/1</u> <u>10YR 6/8</u>	<u>F/d</u>	<u>Clay loam</u>
_____ to _____					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Histic Epipedon ☐ Organic Streaking in Sandy Soils ☒ Listed on National Hydric Soils List ☒ Listed on Local Hydric Soils List ☒ Mottles (Redoxmorphic features)

☐ Concretions ☐ High Organic Content in Surface Layer in Sandy Soils ☒ Gleyed or Low-Chroma Colors (chroma ≤ 2) ☐ Other (Explain in Remarks): _____

Current: ☐ Sulfidic Odor ☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions) ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time) ☒ Other (Explain in Remarks): Sheet pile placed to obstruct drainage of lower ditch (e) Raise water table in wetland of surface flows

Observations and Remarks: lower ditch (e) Raise water table in wetland of surface flows

1. Smell: ☒ Neutral; ☒ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor

2. Site has been: ☒ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope

3. Soils Currently are: ☒ Flooded; ☐ Ponded; ☒ Saturated (upper + lower)

4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown

5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
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Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).

2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).

(a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land

(b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.

(c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

(d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.

(e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

*Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

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11/11/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	Community ID: <u>G</u> Transect ID: <u>G</u> Plot ID: _____

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See data sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

Recorded Data (Attached): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs: Dates: _____ <input checked="" type="checkbox"/> Other: <u>ON-SITE PHOTOS 8/97 & 10/97</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input type="checkbox"/> Pondered <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: _____ Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>12</u> (in.) <u>9-12"</u> <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence <u>2" in ditch</u>	<u>11</u>

Observations and Remarks:

- Filamentous or sheet forming algae present? ☐ Yes ☒ No
- Surface Sediment with Bedding Planes ☐ Yes ☒ No
- Slope: ☒ 0-2%; or ☐ > 2%
- Oxidized rhizospheres: ☐ new roots only; ☐ old roots only; ☒ new and old roots, or ☐ none
- Flooding: ☒ none, flooding not probable; ☐ rare, unlikely but possible under unusual weather conditions; ☐ occasional, occurs on an average of once or less in 2 years, or ☐ frequent, occurs on an average of more than once in 2 years.
- Continuous flooding duration: ☒ None; ☐ very brief, if < 2 days; ☐ brief, if < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS; or ☐ very long, if > 12.5% GS
- Ponding? ☐ Yes ☒ No
- Continuous ponding duration: ☒ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS or ☐ very long, if > 12.5% GS
- Saturation? ☒ Yes ☐ No
- Continuous duration of Saturation: ☐ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS (ditch only)

all, but ditch

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SOILS

Map Unit Name
(Series and Phase):

Canadaigua

Taxonomy (Subgroup):

Drainage Class¹:

SPD

Permeability²:

S

Run off³:

S (Sheet Pile)

Field Observations Confirm NRCS Mapping?

Yes No

Profile Description (Surface to 12"):

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to 4	B	10YR 3/1	10YR 5/6	F/D	Clay loam
4 to 12	B	10YR 5/1	10YR 4/1 10YR 6/8	F/D	Clay loam
to					

Hydric Soil Indicators:

Historic:

- ☐ Histosol
☐ Histic Epipedon
☐ Organic Streaking in Sandy Soils
☐ Listed on National Hydric Soils List
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Concretions

High Organic Content in Surface Layer in Sandy Soils

Gleyed or Low-Chroma Colors (chroma ≤ 2)

Other (Explain in Remarks):

Site drainage altered to obstruct surface & subsurface flows w/ sheet pile placed in ag. ditches

Current:

- ☒ Sulfidic Odor
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)

Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)

Other (Explain in Remarks):

Observations and Remarks:

1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☒ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☐ Ponded; ☒ Saturated
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? ☒ Yes ☐ No
 Wetland Hydrology Conditions Present? ☒ Yes ☐ No
 Hydric Soils Conditions Currently Present? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Signature:

Terry Huffman

Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by HQUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

* Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

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11/11/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u> <u>10/27/99</u>
Applicant/Owner: <u>DRAUSE COUNTY, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>

Do Normal Circumstances exist on the site? ☒ Yes ☒ No
 Is the site significantly disturbed (Atypical Situation)? ☒ Yes ☒ No
 Is the area a potential Problem Area? ☒ Yes ☒ No
 (If needed, explain answer on reverse or attach separate sheet.) CREATED + RESTORED

Community ID: 1
 Transect ID: Summary Plot ID:

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data sheet</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 % along edge of pond
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): <u>Stream, Lake, or Tide Gauge</u> <input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>19 97</u> <input checked="" type="checkbox"/> Other <u>Site photos 8/97 + 10/97</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Ponded <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Soil Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: Depth of Surface Water: <u>2</u> (in.) <u>30% of area</u> Depth to Free Water in Pit: <u>3</u> (in.) <u>60% of area</u> Depth to Saturated Soil: <u>0-10</u> (in.) <u>all</u> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence <input checked="" type="checkbox"/>	+0 4" 0-4"
Observations and Remarks: 1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input checked="" type="checkbox"/> > 2% <u>ON EDGE</u> 4. Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input checked="" type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input checked="" type="checkbox"/> none 5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input checked="" type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input checked="" type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input checked="" type="checkbox"/> frequent, occurs on an average of more than once in 2 years. 6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, if < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS 7. Ponding? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 8. Continuous ponding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input checked="" type="checkbox"/> very long, if > 12.5% GS 9. Saturation? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 10. Continuous duration of Saturation: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS	

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SOILS

Map Unit Name (Series and Phase): <u>Excavated Sed. Pond</u>				Drainage Class ¹ : <u>PD</u>	
Taxonomy (Subgroup): <u>Not in use</u>				Permeability ² : <u>VS</u>	
				Run off ³ : <u>VS (Ponded)</u>	
Profile Description (Surface to 12"):				Field Observations Confirm NRCS Mapping? Yes <input checked="" type="checkbox"/> No <u>quadal</u>	

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>12</u>			<u>10YR 5/6</u>		
to					
to					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Concretions
☐ Histic Epipedon ☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils ☐ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☐ Listed on National Hydric Soils List ☒ Other (Explain in Remarks): Excavated pond
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Current: ☐ Sulfidic Odor ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions) ☐ Other (Explain in Remarks):

Observations and Remarks:

1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
2. Site has been: ☐ Irrigated; ☐ Land Leveled; ☒ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
3. Soils Currently are: ☒ Flooded; ☒ Ponded; ☒ Saturated
4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
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Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
(a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
(b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
(c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
(d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
(e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by H05ACE 3/92*

¹ Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

² Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

³ Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

⁴ Mottle abundance: Few (F), Common (C), or Many (M).

⁵ Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

⁶ Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

⁷ Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

⁸ Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

(16)

11/11/98

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u>
Applicant/Owner: <u>ORANGE COUNTY, NY</u>	County: <u>ORANGE</u> * 10/27/98
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	Community ID: <u>2</u> Transect ID: <u>Summary</u> Plot ID: <u> </u>

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheet</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 % Submersed aquatic
- Assume presence of wetland vegetation? ☒ Yes ☐ No; or,
- Visually observed rooted emergent vegetation present? ☐ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<p>Recorded Data (Attached):</p> <p><input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge</p> <p><input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u></p> <p><input checked="" type="checkbox"/> Other: <u>on site photos 8/97 & 10/97</u></p> <p>No Recorded Data Found</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input checked="" type="checkbox"/> Inundated: <u>Flooded</u> <input checked="" type="checkbox"/> Pondered</p> <p><input checked="" type="checkbox"/> Saturated in: <u>Upper 12" of Soil Profile</u></p> <p><input checked="" type="checkbox"/> Water Marks: <u>Fe 090</u></p> <p><input checked="" type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)</p> <p>Secondary Indicators (2 or more required):</p> <p><input type="checkbox"/> Oxidized Root Channels in: <u>Upper 12" of Soil Profile</u></p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral Test</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Current Field Observations:</p> <p>Depth of Surface Water: <u>10" - 2' ft</u></p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p> <p>Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence</p>	<p>30"</p> <p>0</p> <p>0</p>
<p>Observations and Remarks:</p> <ol style="list-style-type: none"> Filamentous or sheet forming algae present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Surface Sediment with Bedding Planes <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Slope: <input checked="" type="checkbox"/> 0-2%; or <input type="checkbox"/> > 2% Oxidized rhizospheres: <input type="checkbox"/> new roots only; <input type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input type="checkbox"/> none Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input type="checkbox"/> frequent, occurs on an average of more than once in 2 years. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, if < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS Ponding? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Continuous ponding duration: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS Saturation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Continuous duration of Saturation: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS 	

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Map Unit Name
(Series and Phase):

Excavate site to

Taxonomy (Subgroup):

Make pond

Drainage Class¹:

PD

Permeability²:

VS

Run off³:

VS (Pond)

Field Observations Confirm NRCS Mapping?

Yes ☒ No

Profile Description (Surface to 12"):

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to					
to					
to					

Hydric Soil Indicators:

Historic:

- ☐ Histosol
☐ Histic Epipedon
☐ Organic Streaking in Sandy Soils
☐ Listed on National Hydric Soils List
☐ Listed on Local Hydric Soils List
☐ Mottles (Redoxmorphic features)

☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils

☐ Gleyed or Low-Chroma Colors (chroma ≤ 2)

☐ Other (Explain in Remarks):

Current:

- ☒ Sulfidic Odor
☒ Reducing Conditions (Environment
conductive to the removal of
oxygen & chemical reduction of ions)

☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)

☐ Other (Explain in Remarks):

Observations and Remarks:

1. Smell: ☐ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☒ Sulfidic Odor
2. Site has been: ☐ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
3. Soils Currently are: ☐ Flooded; ☒ Ponded; ☒ Saturated
4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations;
(> 30 days) during the growing season; ☐ Unknown
5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? ☒ Yes ☐ No

Wetland Hydrology Conditions Present? ☒ Yes ☐ No

Hydric Soils Conditions Currently Present? ☒ Yes ☐ No

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Signature:

Terry Huffman

Remarks:

1. Possible water of the U.S.? ☐ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
(a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
(b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
(c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used
exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
(d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry
land to retain water for primarily aesthetic reasons.
(e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the
purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned
and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

OTES:

Approved by HQUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

* Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

* SUBMERGED aquatic (*Elodea canadensis*)

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ROUTINE WETLAND DETERMINATION
(1987 Corps Methodology Wetlands Delineation Manual)

Project/Site: <u>ORANGE County Mitigation</u> Applicant/Owner: <u>ORANGE COUNTY, NY</u> Investigator(s): <u>TERRY HUFFMAN</u>	Date: <u>11/20/97</u> County: <u>ORANGE</u> <i>10/27/99</i> State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	
Community ID: <u>3a-d</u> Transect ID: _____ Plot ID: <u>Summary</u>	

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See data sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

1. Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
☒ Yes ☒ No; or, ☒ No
2. Assume presence of wetland vegetation? ☒ Yes ☒ No
3. Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
4. Taxonomic References:

HYDROLOGY

<p><u>Recorded Data (Attached):</u> <u>Stream, Lake, or Tide Gauge</u> <u>Aerial Photographs: Dates: 1987</u> <u>Other: on site photos 8/97</u> <u>1/97</u></p> <p><u>No Recorded Data Found</u></p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input checked="" type="checkbox"/> Inundated: <u>Flooded Upper 12" of Soil Profile</u> <i>(visual)</i> <input checked="" type="checkbox"/> Saturated in: <u>Upper 12" of Soil Profile</u> <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in: <u>Upper 12" of Soil Profile</u> <input checked="" type="checkbox"/> Water-Stained Leaves <input checked="" type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)</p>
<p>Current Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.) + Depth to Free Water in Pit: <u>0</u> (in.) 0 Depth to Saturated Soil: <u>5-12</u> (in.) 9-12"</p> <p><input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence</p>	<p><i>Visual</i></p> <p><i>0</i> <i>0</i> <i>12</i></p>
<p>Observations and Remarks:</p> <ol style="list-style-type: none"> 1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input checked="" type="checkbox"/> > 2% 4. Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input checked="" type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input checked="" type="checkbox"/> none 5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input checked="" type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input checked="" type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input checked="" type="checkbox"/> frequent, occurs on an average of more than once in 2 years. 6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, if < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS 7. Ponding? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 8. Continuous ponding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS or; <input checked="" type="checkbox"/> very long, if > 12.5% GS 9. Saturation? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 10. Continuous duration of Saturation: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS <i>(Mars)</i> 	

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SOILS

Map Unit Name (Series and Phase): <u>Site graded</u> Taxonomy (Subgroup): _____ Profile Description (Surface to 12"): _____			Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VS</u> Run off ³ : <u>VS</u> Field Observations Confirm NRCS Mapping? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> <u>graded</u>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>12</u>		<u>10YR 3/2</u>	<u>10YR 5/6</u>	<u>9/10</u>	<u>CI/</u>
0 to <u>12</u>			<u>10YR 5/6</u>		
___ to ___					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Concretions
☐ Histic Epipedon ☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils ☐ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☐ Listed on National Hydric Soils List ☐ Other (Explain in Remarks): _____
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Current: ☒ Sulfidic Odor ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions) ☐ Other (Explain in Remarks): _____

Observations and Remarks:

1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☐ Ponded; ☒ Saturated
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
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Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES: Approved by HGUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).
 Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).
 Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).
 Mottle abundance: Few (F), Common (C), or Many (M).
 Mottle contrast: Faint (F), Distinct (D), or Prominent (P).
 Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.
 Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.
 *Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

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11/11/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID: <u>4900102</u>
Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>Summary</u> Plot ID: <u></u>
Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
(If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): <input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <u>1997</u> <input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u> <input checked="" type="checkbox"/> Other <u></u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Pondered (Evidence) <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)
Current Field Observations: Depth of Surface Water: <u>0</u> (in.) <u>none</u> Depth to Free Water in Pit: <u>0</u> (in.) <u>0</u> Depth to Saturated Soil: <u>2-12"</u> <u>5-12"</u> <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence <u>AD 9"</u>	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: <u>Upper 12" of Soil Profile</u> <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)

Observations and Remarks:

- Filamentous or sheet forming algae present? ☒ Yes ☒ No
- Surface Sediment with Bedding Planes ☒ Yes ☒ No
- Slope: ☒ 0-2%; or ☒ > 2%
- Oxidized rhizospheres: ☒ new roots only; ☒ old roots only; ☒ new and old roots, or ☒ none
- Flooding: ☒ none, flooding not probable; ☒ rare, unlikely but possible under unusual weather conditions; ☒ occasional, occurs on an average of once or less in 2 years, or ☒ frequent, occurs on an average of more than once in 2 years.
- Continuous flooding duration: ☒ None; ☒ very brief, if < 2 days; ☒ brief, if < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS
- Ponding? ☒ Yes ☒ No low spots (< 5% of area)
- Continuous ponding duration: ☒ None; ☒ very brief, if < 2 days; ☒ brief, < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS
- Saturation? ☒ Yes ☒ No
- Continuous duration of Saturation: ☒ None; ☒ very brief, if < 2 days; ☒ brief, < 5% growing season (GS); ☒ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS

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SOILS

Map Unit Name (Series and Phase): <u>Site Graded</u> Taxonomy (Subgroup): _____ Profile Description (Surface to 12"): _____				Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VP</u> Run off ³ : <u>VP</u> Field Observations Confirm NRCS Mapping? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>12</u>	<u>B</u>	<u>10YR 3/1</u>	<u>10YR 5/6</u>		<u>clay loam</u>
_____ to _____					
_____ to _____					

Hydric Soil Indicators:

Historic: ☐ Histosol ☐ Concretions
☐ Histic Epipedon ☐ High Organic Content in Surface Layer in Sandy Soils
☐ Organic Streaking in Sandy Soils ☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☐ Listed on National Hydric Soils List ☒ Other (Explain in Remarks): on-site Black soil placed
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Current: ☒ Sulfidic Odor ☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions) ☐ Other (Explain in Remarks): _____

Observations and Remarks:

1. Smell: ☐ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☐ Ponded; ☐ Saturated⁸
 4. Soils: ☐ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☐ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
---	---

Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by HQUSACE 3/92*

¹ Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

² Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

³ Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

⁴ Mottle abundance: Few (F), Common (C), or Many (M).

⁵ Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

⁶ Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

⁷ Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

⁸ Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

22

11/10/98 +

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11/20/97</u> # <u>1027/98</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is the area a potential Problem Area? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If needed, explain answer on reverse or attach separate sheet.) <u>CREATED & RESTORED</u>	Community ID: <u>46 (1+2)</u> Transect ID: <u>Summary</u> Plot ID: <u></u>

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See data sheet</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
☒ Yes ☒ No; or, ☒ No
- Assume presence of wetland vegetation? ☒ Yes ☒ No
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): <u>Stream, Lake, or Tide Gauge</u> <input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u> <input checked="" type="checkbox"/> Other: <u>on site 8/97 & 1997</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input type="checkbox"/> Pondered <input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>5-12"</u> (in.) <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence	Observations and Remarks: 1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input type="checkbox"/> > 2% 4. Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input checked="" type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input type="checkbox"/> none 5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input type="checkbox"/> frequent, occurs on an average of more than once in 2 years. 6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, if < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS 7. Ponding? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 8. Continuous ponding duration: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input type="checkbox"/> very long, if > 12.5% GS 9. Saturation? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 10. Continuous duration of Saturation: <input type="checkbox"/> None; <input type="checkbox"/> very brief, if < 2 days; <input type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input type="checkbox"/> very long, if > 12.5% GS

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SOILS

Map Unit Name (Series and Phase): <u>Site Grade to</u> Taxonomy (Subgroup): <u>exposed sub-surface soil</u>				Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VS</u> Run off ³ : <u>VS (ponded)</u> Field Observations Confirm NRCS Mapping? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Profile Description (Surface to 12"):					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to <u>12</u>		<u>10YR 3/2</u>	<u>10YR 5/6</u>	<u>C/D</u>	<u>clay loam</u>
<u>10</u> to <u>12"</u>		<u>10YR 3/1</u>	<u>10YR 5/6</u>	<u>F/D</u>	
___ to ___					

Hydric Soil Indicators:

Historic:
☐ Histosol
☐ Histic Epipedon
☐ Organic Streaking in Sandy Soils
☐ Listed on National Hydric Soils List
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

☐ Concretions
☐ High Organic Content in Surface Layer in Sandy Soils
☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)
☒ Other (Explain in Remarks): graded to trap surface water

Current:
☒ Sulfidic Odor
☒ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)
☐ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☒ Other (Explain in Remarks): _____

Observations and Remarks:
 1. Smell: ☒ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☐ Ponded; ☒ Saturated
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
---	---

Remarks:
 1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

VOTES:

- ¹ Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).
- ² Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).
- ³ Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).
- ⁴ Mottle abundance: Few (F), Common (C), or Many (M).
- Mottle contrast: Faint (F), Distinct (D), or Prominent (P).
- Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.
- Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.
- ⁵ Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

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11/10/98+

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11/20/97</u> <u>10/27/99</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>

Do Normal Circumstances exist on the site? ☒ Yes ☒ No
 Is the site significantly disturbed (Atypical Situation)? ☒ Yes ☒ No
 Is the area a potential Problem Area? ☒ Yes ☒ No
 (If needed, explain answer on reverse or attach separate sheet.) CREATED & RESTORED

Community ID: 5 9-E
 Transect ID: Summary Plot ID:

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data Sheets</u>		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☒ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☒ No
- Taxonomic References:

HYDROLOGY

<p>Recorded Data (Attached):</p> <p><input checked="" type="checkbox"/> Stream, Lake, or Tide Gauge <u>1987</u></p> <p><input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u></p> <p><input checked="" type="checkbox"/> Other <u>on site photos 8/97</u></p> <p><input checked="" type="checkbox"/> No Recorded Data Found</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input checked="" type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Ponded</p> <p><input checked="" type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile</p> <p><input checked="" type="checkbox"/> Water Marks</p> <p><input checked="" type="checkbox"/> Drift Lines</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context)</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile</p> <p><input checked="" type="checkbox"/> Water-Stained Leaves</p> <p><input checked="" type="checkbox"/> Local Soil Survey Data</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p>
<p>Current Field Observations:</p> <p>Depth of Surface Water: <u>0-2"</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0-3"</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p> <p>Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence <input checked="" type="checkbox"/></p>	<p>Observations and Remarks:</p> <p>1. Filamentous or sheet forming algae present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Surface Sediment with Bedding Planes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>3. Slope: <input checked="" type="checkbox"/> 0-2%; or <input checked="" type="checkbox"/> > 2%</p> <p>4. Oxidized rhizospheres: <input checked="" type="checkbox"/> new roots only; <input checked="" type="checkbox"/> old roots only; <input checked="" type="checkbox"/> new and old roots, or <input checked="" type="checkbox"/> none</p> <p>5. Flooding: <input checked="" type="checkbox"/> none, flooding not probable; <input checked="" type="checkbox"/> rare, unlikely but possible under unusual weather conditions; <input checked="" type="checkbox"/> occasional, occurs on an average of once or less in 2 years, or <input checked="" type="checkbox"/> frequent, occurs on an average of more than once in 2 years.</p> <p>6. Continuous flooding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, if < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS</p> <p>7. Ponding? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>8. Continuous ponding duration: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS or <input checked="" type="checkbox"/> very long, if > 12.5% GS</p> <p>9. Saturation? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>10. Continuous Duration of Saturation: <input checked="" type="checkbox"/> None; <input checked="" type="checkbox"/> very brief, if < 2 days; <input checked="" type="checkbox"/> brief, < 5% growing season (GS); <input checked="" type="checkbox"/> long, if ≥ 5% to 12.5% GS; or <input checked="" type="checkbox"/> very long, if > 12.5% GS</p>

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SOILS

Map Unit Name
(Series and Phase):Site graded to
Subsoil

Taxonomy (Subgroup):

Drainage Class¹:

PD

Permeability²:

VS

Run off³:

VS (ponded)

Field Observations Confirm NRCS Mapping?

Yes ☒ No

Profile Description (Surface to 12"):

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 to 12		10YR 3/2	10YR 5/6	C/d	clay loam
to					
to					

Hydric Soil Indicators:

Historic:

- ☐ Histosol
☐ Histic Epipedon
☐ Organic Streaking in Sandy Soils
☐ Listed on National Hydric Soils List
☐ Listed on Local Hydric Soils List
☒ Mottles (Redoxmorphic features)

Concretions

High Organic Content in Surface Layer in Sandy Soils

☒ Gleyed or Low-Chroma Colors (chroma ≤ 2)

Other (Explain in Remarks):

Site graded to
pond

Current:

- ☐ Sulfidic Odor
☒ Reducing Conditions (Environment
 conducive to the removal of
 oxygen & chemical reduction of ions)

☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)

Other (Explain in Remarks):

Observations and Remarks:

1. Smell: ☒ Neutral; ☒ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☒ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☒ Ponded; ☒ Saturated
 4. Soils: ☒ do ☐ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations;
 (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☐ do ☐ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present?

☒ Yes ☐ No

Wetland Hydrology Conditions Present?

☒ Yes ☐ No

Hydric Soils Conditions Currently Present?

☒ Yes ☐ No

Is this Sampling Point Within a Wetland?

☒ Yes ☐ No

Signature:

Terry Huffman

Remarks:

1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used
 exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry
 land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the
 purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned
 and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Approved by HQUSACE 3/92*

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

*Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

(26)

11/10/11/98

Project/Site: <u>ORANGE County Mitigation</u>	Date: <u>11-20-97</u>
Applicant/Owner: <u>ORANGE County, NY</u>	County: <u>ORANGE</u>
Investigator(s): <u>TERRY HUFFMAN</u>	State: <u>NY</u>

Do Normal Circumstances exist on the site? ☒ Yes ☐ No
 Is the site significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
 Is the area a potential Problem Area? ☒ Yes ☐ No
 (If needed, explain answer on reverse or attach separate sheet.) CREATED & RESTORED

Community ID: 6
 Transect ID: Summary Plot ID:

VEGETATION

Dominant Plant Species	Indicator	Dominant Plant Species	Indicator
1. <u>See Data sheets</u>		9.	
2. <u>(problems w/</u>		10.	
3. <u>nowhere)</u>		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Observations & Remarks:

- Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
- Assume presence of wetland vegetation? ☒ Yes ☐ No; or,
- Visually observed rooted emergent vegetation present? ☒ Yes ☐ No
- Taxonomic References:

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Attached): <u>Stream, Lake, or Tide Gauge</u> <input checked="" type="checkbox"/> Aerial Photographs: Dates: <u>1997</u> <input checked="" type="checkbox"/> Other: <u>8/97 & 10/97 site photos</u> <input type="checkbox"/> No Recorded Data Found	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated: <input checked="" type="checkbox"/> Flooded <input checked="" type="checkbox"/> Ponded <input type="checkbox"/> Saturated in: <input checked="" type="checkbox"/> Upper 12" of Soil Profile <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands (Hydrogeomorphic context) Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in: <input type="checkbox"/> Upper 12" of Soil Profile <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Current Field Observations: Depth of Surface Water: <u>0.0</u> (in.) Depth to Free Water in Pit: <u>0.0</u> (in.) Depth to Saturated Soil: <u>6"</u> (in.) <input checked="" type="checkbox"/> Tidal Influence <input checked="" type="checkbox"/> Non-Tidal Influence	* 0 11"

Observations and Remarks:

- Filamentous or sheet forming algae present? ☒ Yes ☐ No
- Surface Sediment with Bedding Planes ☒ Yes ☐ No
- Slope: ☒ 0-2%; or ☐ > 2%
- Oxidized rhizospheres: ☐ new roots only; ☐ old roots only; ☒ new and old roots, or ☐ none
- Flooding: ☒ none, flooding not probable; ☐ rare, unlikely but possible under unusual weather conditions; ☐ occasional, occurs on an average of once or less in 2 years, or ☐ frequent, occurs on an average of more than once in 2 years.
- Continuous flooding duration: ☒ None; ☐ very brief, if < 2 days; ☐ brief, if < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS; or ☐ very long, if > 12.5% GS
- Ponding? ☒ Yes ☐ No
- Continuous ponding duration: ☐ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS or; ☒ very long, if > 12.5% GS
- Saturation? ☒ Yes ☐ No
- Continuous duration of Saturation: ☐ None; ☐ very brief, if < 2 days; ☐ brief, < 5% growing season (GS); ☐ long, if ≥ 5% to 12.5% GS; or ☒ very long, if > 12.5% GS

(27)

SOILS

Map Unit Name (Series and Phase): <u>S70 G Road</u>		Drainage Class ¹ : <u>PD</u> Permeability ² : <u>VS</u> Run off ² : <u>VS</u>			
Taxonomy (Subgroup): _____		Field Observations Confirm NRCS Mapping? Yes <input checked="" type="checkbox"/> No			
Profile Description (Surface to 12"):					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance ⁴ / Contrast ⁵	Texture ⁶ , Concretions, Structures ⁷ , etc.
0 ⁺ to 12	B		10YR 5/6	F/Δ	
_____ to _____					
_____ to _____					

Hydric Soil Indicators:

Historic: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input checked="" type="checkbox"/> Mottles (Redoxmorphic features)	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Gleyed or Low-Chroma Colors (chroma ≤ 2) <input checked="" type="checkbox"/> Other (Explain in Remarks): <u>Site grade 0 to pond</u>
--	---

Current:
☒ Sulfidic Odor
☐ Reducing Conditions (Environment conducive to the removal of oxygen & chemical reduction of ions)
☒ Aquic Moisture Regime (nearly free of dissolved oxygen for period of time)
☐ Other (Explain in Remarks): _____

Observations and Remarks:
 1. Smell: ☐ Neutral; ☐ Slightly Fresh; ☐ Freshly Plowed Field Smell; or ☐ Sulfidic Odor
 2. Site has been: ☐ Irrigated; ☐ Land Leveled; ☐ Ditch Drained; ☐ Tile Drained; ☐ Pumped; ☐ Graded to drain via slope
 3. Soils Currently are: ☐ Flooded; ☒ Ponded; ☒ Saturated⁸
 4. Soils: ☒ do not, become continuously flooded or ponded for long (≥ 15 to 30 days) to very long durations; (> 30 days) during the growing season; ☐ Unknown
 5. Soils: ☒ do not, become continuously saturated for 14 days or greater

WETLAND DETERMINATION

Hydrophytic Vegetation Conditions Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Conditions Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Conditions Currently Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No Signature: <u>Terry Huffman</u>
--	--

Remarks:
 1. Possible water of the U.S.? ☒ Yes ☐ No (can be a water and not a wetland when vegetation is absent if bed and bank present).
 2. Possibly exempt from Corps/EPA regulation? ☐ Yes ☐ No (If yes, check item(s) below).
 (a) ☐ Non-tidal drainage and irrigation ditches excavated on dry land
 (b) ☐ Artificially irrigated areas which would revert to upland if the irrigation ceased.
 (c) ☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 (d) ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 (e) ☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).

NOTES:

Drainage class: Excessively drained (ED), Somewhat excessively drained (SED), Well drained (WD), Moderately well drained (MWD), Somewhat poorly drained (SPD), Poorly drained (PD), Very poorly drained (VPD), or Variable (V).

Permeability: Very slow (VS-less than 0.06 inch), slow (S-0.06 to 0.20 inch), moderately slow (MS-0.2 to 0.6 inch), moderate (M-0.6 to 2.0 inches), moderately rapid (MR-2.0 to 6.0 inches), rapid (R-6.0 to 20 inches), very rapid (VR-more than 20 inches), or Variable (V).

Runoff: Very slow (VS) Slow (S), Moderate (M), Rapid (R), or Variable (V).

Mottle abundance: Few (F), Common (C), or Many (M).

Mottle contrast: Faint (F), Distinct (D), or Prominent (P).

Texture: Sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

Structure: Platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), or granular.

Reliance on visual observation of flooding, or ponding is required, or the use of indicators other than factors such as soil color, the presence of mottles, or hydric soil classification.

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ATTACHMENT NO. 9
SITE EVALUATION OF MITIGATION SUCCESS

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 1

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 3

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 44

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 46

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 6

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success criteria met; X not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion: present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory: X present; absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance: X present; absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

*Vegetation - only 1.21 ac successful
4.63 ac mowed. Propose use
of site 3 (use 3.42 ac in
site 3) to make up short fall*

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. 5

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion: present; ^ absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory: present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance: present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

Site is 0.86 ac Not 0.60 ac (used GPS)

¹Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. AA

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

X present; absent
*Moderate GOOSE grazing
(no need to control)*

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. BB

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

X present; absent
*Moderate goose grazing
no need to control*

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. CC

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

X present; absent

- a. if not met, state cause:
- b. proposed remedial action:¹

*GOOSE grazing present
moderate NO NEED
to control*

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. DD

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

X present; absent

- a. if not met, state cause:
- b. proposed remedial action:¹

*moderate goose
gazing; no need
to control*

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

¹Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. EE

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

Site still moving from PE to PSS

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET FOR EVALUATION OF MITIGATION SUCCESS

CORPS PROJECT NO. EPA-CWA-II-92-155

DATE: 10/27/99 RECORDER: TH

TECHNICAL REVIEWER TH

MONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. G

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

 present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

 present; X absent

- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

Loosestrife still present, but slowly being shaded out.

¹ Attach additional comments as necessary.

ATTACHMENT NO. 9

MITIGATION MONITORING DATA SHEET
FOR EVALUATION OF MITIGATION SUCCESSCORPS PROJECT NO. EPA-CWA-II-92-155DATE: 10/27/99 RECORDER: THTECHNICAL REVIEWER THMONITORING YEAR 99 & NO. 3

MITIGATION SITE NO. _____

Regulatory Requirement: Provide an annual assessment of mitigation success and provide recommendation for corrective action as necessary.

1. Assessment of Vegetation Success

X criteria met; _____ not met

- a. if not met, state cause:
- b. proposed remedial action:¹

2. Assessment of Erosion:

_____ present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

3. Assessment of Herbivory:

_____ present; X absent

- a. if not met, state cause:
- b. proposed remedial action:¹

4. Assessment of Other Disturbance:

_____ present; X absent

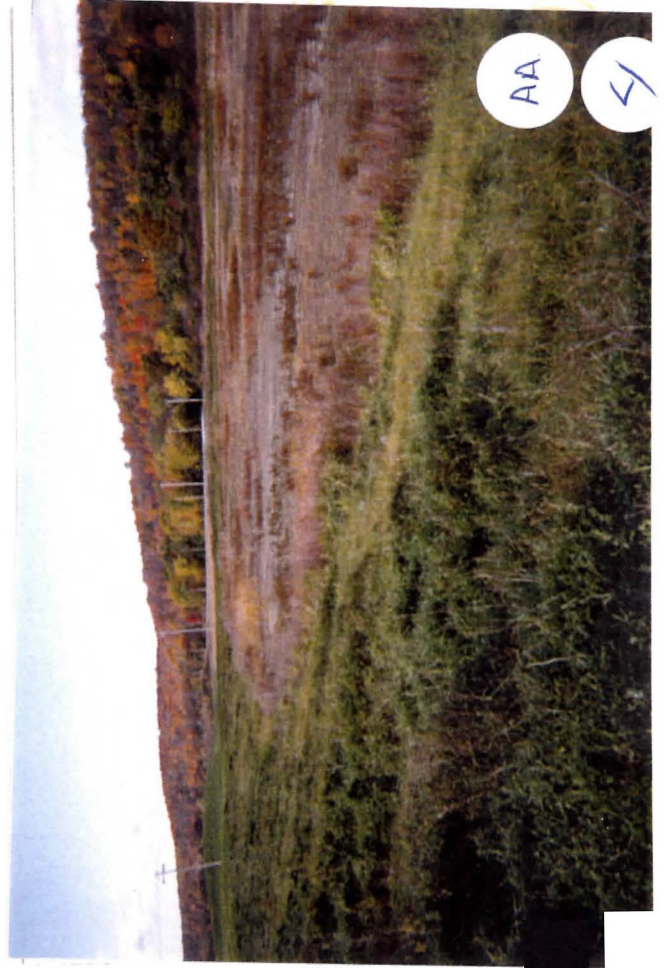
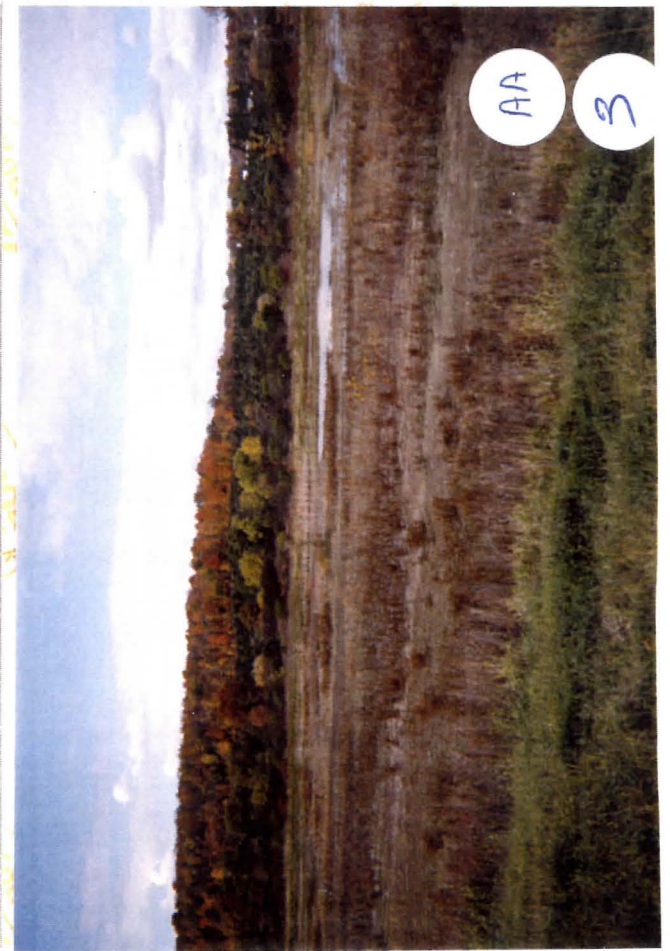
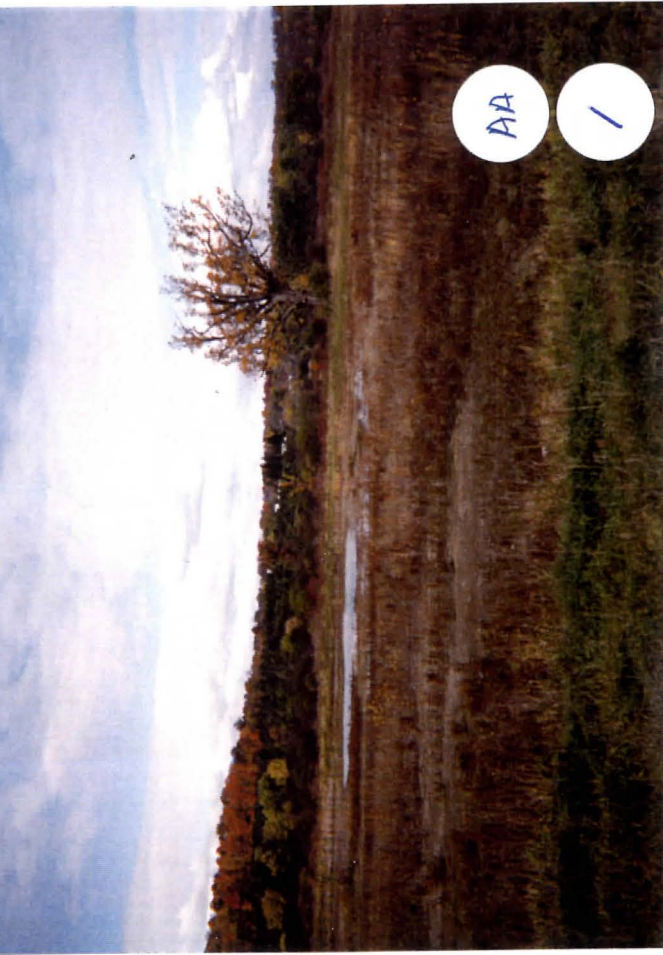
- a. if not met, state cause:
- b. if not met, state cause:
- c. if not met, state cause:
- d. proposed remedial action:¹

5. Other comments:¹

Lo sistrife still present, but populations in F1, F2 & F3 transects being reduced by shrub & tree growth.

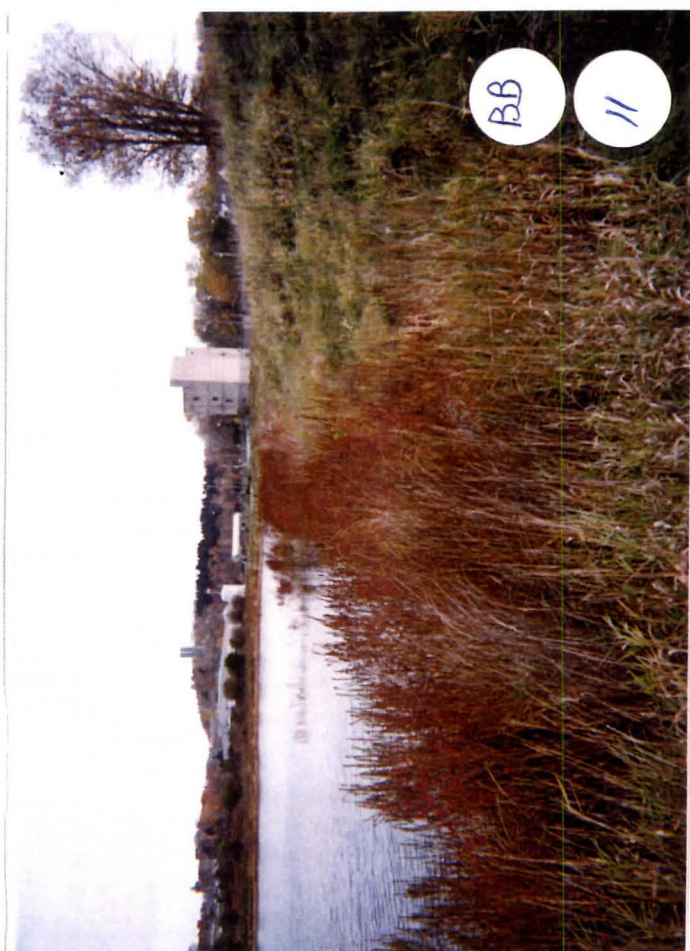
¹ Attach additional comments as necessary.

ATTACHMENT NO. 10
REPRESENTATIVE 1999 SITE PHOTOGRAPHS











BB

15



BB

17



BB

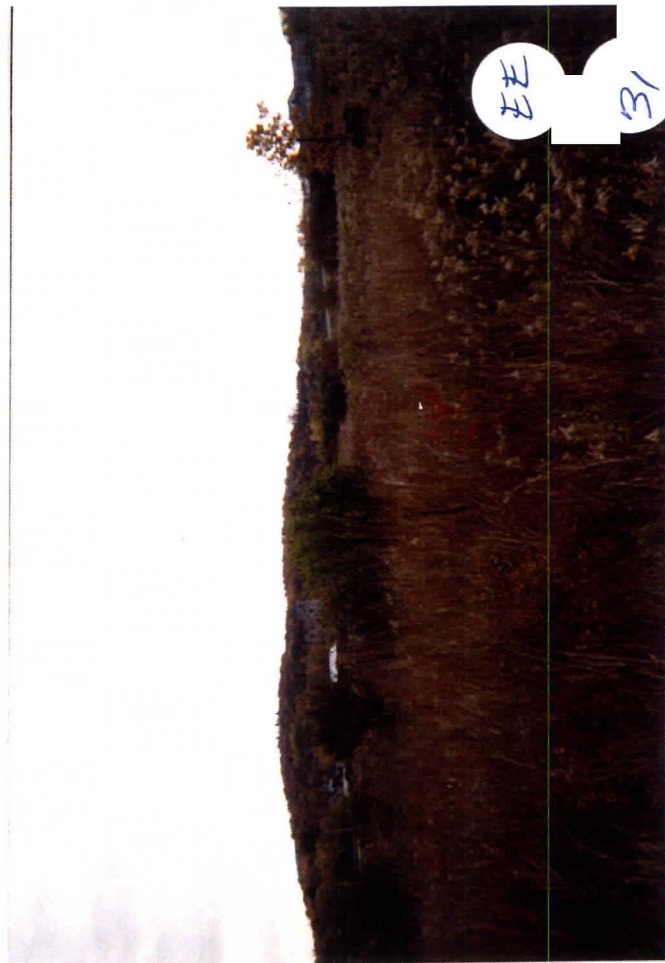
16















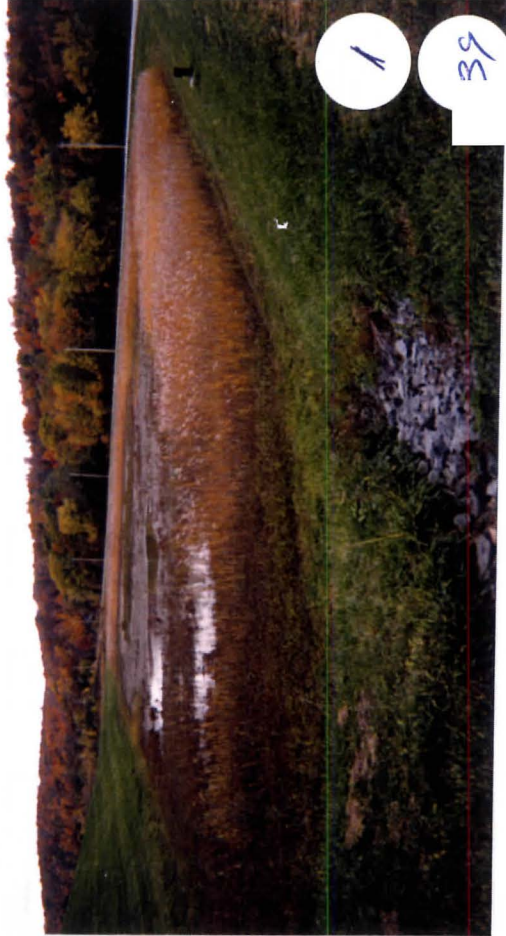
F5
32



F5

36







36

43



37

45



39

42



38

44





